



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,188	11/21/2001	William Tunstall-Pedoe	GNUSP001	1670

22434 7590 06/08/2004

BEYER WEAVER & THOMAS LLP  
P.O. BOX 778  
BERKELEY, CA 94704-0778

EXAMINER
----------

AL HASHEMI, SANA A

ART UNIT	PAPER NUMBER
----------	--------------

2171

DATE MAILED: 06/08/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

me

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/990,188	TUNSTALL-PEDOE, WILLIAM	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sana Al-Hashemi	2171	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/21/01.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 43-86 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 21-35, and 39-42 is/are rejected.
- 7) ☒ Claim(s) 18-20 and 36-38 is/are objected to.
- 8) ☒ Claim(s) 1-86 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-42, drawn to knowledge base representation, classified in class 707, subclass 500.
- II. Claims 43-86, drawn to identifying object name which defines the relationship between the first and second objects, classified in class 707, subclass 103Y.

Inventions I – II, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, the combination (I) as claimed does not require subcombination II as claimed, because it is a knowledge base presentation method that does not require the subcombination of identifying object name which defines the relationship between the first and second objects. The subcombinations II has separate utility such as identifying object name, which defines the relationship between the first and second objects. Therefore, the inventions are distinct; however, they could be usable together.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Art Unit: 2171

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for one group is not required for the other groups, restriction for examination purposes as indicated is proper.

During a telephone conversation with Joseph M. Villeneuve on May 24, 2004 a provisional election was made without traverse to prosecute the invention of I, claims 1-42. Affirmation of this election must be made by applicant in replying to this Office action. Claims 43-86 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected inventions.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1-42 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Independent Claims 1, 21, and 39, contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 2171

1- the relationship between pairs of object in the said first knowledge, or in the first and second knowledge.

2-where the first and second knowledge bases reside on the first or second or separate computer.

3- it's unclear what algorithm is used to answer or process the user query in Fig. 8, 810 the knowledge inference system, 812 Dumb and smart generator, and 814 Natural language translation system.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-17, 21-35, and 39-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Paik et al (US Patent No. 6,263,335).

1. Regarding Claim 1, 21, and 39, Paik discloses at least one computer-readable medium having computer program instructions embodied therein for interacting with at least one knowledge base, the at least one knowledge base having data stored therein representing first knowledge about a plurality of objects using a plurality of relationships between pairs of the objects, the computer program instructions comprising (see column 5, lines 3-40, Paik) :

first computer program instructions operable to interact with the at least one knowledge base and infer second knowledge not represented in the at least one knowledge base from the first knowledge(see column 6, lines 37-43, Paik); and

second computer program instructions operable to respond to a query having a predetermined format using at least one of the first knowledge and the second knowledge (see column 6, lines 46-51, Paik).

2. Regarding Claims 2, 22, and 40, Paik discloses at least one computer-readable medium wherein the first computer program instructions are operable to infer the second knowledge with reference to the relationships (see column 7, lines 4-15, Paik).

3. Regarding Claim 4, Paik discloses at least one computer-readable medium wherein at least a portion of the first and second computer program instructions are part of a server-side application (see column 6, lines 16-25, Paik).

4. Regarding Claims 5, and 23, Paik discloses at least one computer-readable medium wherein the computer program instructions further comprise third computer program instructions operable to generate the query (see column 9, lines 5-9, Paik).

5. Regarding Claims 6, and 24, Paik discloses at least one computer-readable medium wherein the third computer program instructions are operable to generate the query in response to query data representing a natural language question (see Fig. 6, Paik).

6. Regarding Claim 7, and 25, Paik discloses at least one computer-readable medium wherein the natural

Art Unit: 2171

language question is entered as a text string into a URL window in a browser environment, the third computer program instructions further being operable to determine whether the text string is a URL or the query data (see Fig. 7, column 22, lines 14-25, Paik).

7. Regarding Claim 8, and 26, Paik discloses at least one computer-readable medium wherein the third

computer program instructions are operable to translate a natural language question into the query by generating at least one sub-string from a string of text corresponding to the natural language question, and selecting at least one of a plurality of query template components corresponding to the at least one sub-string to generate the query (see column 10, lines 35-57, Paik).

8. Regarding Claim 9, and 27, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to substitute the selected query template components into variables associated with a query generator execution of which generates the query (see column 10, lines 58-67, Paik).

9. Regarding Claims 10, and 28, Paik discloses at least one computer-readable medium further comprising:

fourth computer program instructions operable to generate a query template including the plurality of query template components by designating a plurality of predefined text substrings and a plurality of variables to which the predefined text sub-strings correspond, and by defining a query generator with respect to the variables, the query generator being operable to generate the query from selected ones of the predefined text sub-strings being substituted for the corresponding variables (see column 10, lines 5-31, Paik).

Art Unit: 2171

10. Regarding Claims 11, and 29, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to generate a plurality of query candidates including the query (see column 24, lines 57-63, Paik).

11. Regarding Claims 12, and 30, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to reject selected ones of the plurality of query candidates with reference to the knowledge base (see column 5, lines 3-13, Paik).

12. Regarding Claims 13, and 31, Paik discloses at least one computer-readable medium wherein the third computer program instructions are further operable to present the plurality of query candidates for selection of the query (see column 6, lines 1-6, Paik).

13. Regarding Claims 14, 15, 32, and 33, Paik discloses at least one computer-readable medium wherein the computer program instructions further comprise third computer program instructions operable to generate a natural language response to the query with reference to selected ones of the plurality of objects (see Fig. 7, Paik).

14. Regarding Claims 16, and 34, Paik discloses at least one computer-readable medium wherein the translation objects comprise common translation objects and unique translation objects, the common translation objects relating an associated one of the selected objects with a common translation for the associated selected object, and the unique translation objects relating an associated one of the selected objects with a unique translation for the associated object (see column 12, lines 38-52, Paik).

15. Regarding Claims 17, and 35, Paik discloses at least one computer-readable medium wherein the first

Art Unit: 2171

computer program instructions are operable to implement a plurality of inference generators each of which is operable to generate facts not represented in the knowledge base with reference to at least one of the plurality of objects and at least one potential fact associated with the inference generator (see column 12, lines 53-61, Paik).

16. Regarding Claims 41, and 42, Paik discloses a system wherein the at least one memory and the at least one central processing unit are connected via a local area network (see column 7, lines 61-64, Paik).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paik et al (US Patent No. 6,263,335) in view of Ahmed et al. (US Patent No. 5,809,493).

17. Regarding Claim 3, Paik discloses all the limitation subject matter as addressed in the rejection above except the plug-in application for use with the client browser application. However, Ahmed discloses the plug-in application (see column 5, lines 57-65, Ahmed). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the plug-in method with the motivation of allowing the system to receive any and more type of database configuration with less user interaction, which in other words improves the database flexibility in receiving new and/or improved updates.

***Allowable Subject Matter***

Claims 18-20 and 36-38 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach, teach or render obvious the claimed feature, i.e. the plurality of inference generators are operable to generate facts with reference to the associated objects, the relationships corresponding to the associated objects, and the associated potential facts, and without reference to any processes external to the inference generator, in conjunction with the other claim provisions.

Art Unit: 2171

*Points of Contact*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to: Sana Al-Hashemi whose telephone number is (703) 305-4881. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436. Any response to this office action should be mailed to: The Commissioner of Patents and Trademarks, Washington, D.C. 20231. Or telefax at phone number (703) 872-9306. For formal or draft communications, please label "PROPOSED" or "DRAFT". Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, 6<sup>th</sup> Floor Receptionist, Arlington, Virginia. 22202.

---

Sana Al-Hashemi  
Patent Examiner  
Technology Center 2100  
May 27, 2004

  
SAFET METJAHIC  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100